

REMARKS

Applicant has amended claims 1, 13, 16, 20, 24, 25 and 29, and cancelled claims 13 and 23-24. Claims 1-12, 14-22 and 25-31 are pending in this application.

The Examiner rejected claims 1-2, 4-5, 7-10, 12-13, 16-19, 22-23 and 25-31 under 35 U.S.C. Section 102(b) as being anticipated by either Goldenberg (US Patent No. 5352198) or Chu (US Patent No. 5928208). The Examiner also rejected claims 14 and 24 under 35 U.S.C. Section 103(a) as being obvious over Goldenberg in view of Chu and claim 15 as being obvious over Goldenberg. Applicant respectfully traverses the rejections.

One novel feature of the present invention as claimed in claim 1 will be explained, by way of example only, with reference to FIGS. 3 and 4 of the present application. In a conventional drainage catheter such as shown in Goldenberg, an annular ring or an annular sealing material 52 is generally used to seal an opening 40 through which a cord 46 exits from a catheter hub 42. One problem is that such a catheter tends to leak through the exit hole as the annular sealing material 52 does not provide sufficient closure even when the sealing material is wrapped over the exit hole 40 (see also paragraph 32 of the present specification).

To solve this problem, the present invention of claim 1 provides the sealing material 253 inside a port 250 which is located within a sidewall of the hub. The port 250 is in communication with a hub lumen 133, 233 and the cord 150 extends through the hub lumen and then through the port 250. The inner wall surrounding the sealing material 253 applies substantial pressure to the sealing material to provide a vastly improved sealing mechanism such that even when the hub is in an unlatched position (see FIG. 3 of the present application), the port 250 along with the sealing material 253 provide an effective leak-proof seal (see paragraphs 96 and 106).

This feature originally in claim 13 has been incorporated into claim 1 as:

“the hub further having:

a port in communication with a lumen of the hub; and
a deformable sealing material disposed in the port;”.

By contrast, neither Goldenberg nor Chu teach or suggest such a novel feature.

The Examiner points to Goldenberg col. 3, line 32 as teaching the “port” of claim 1 (apparently equating the annular silicone ring 52 to the “port”). Applicant respectfully disagrees.

First, the silicone ring 52 of Goldenberg is not a part of the hub 42. Second, the silicone ring 52 does not contain a “deformable sealing material” as recited in claim 1. Applicant submits that the silicone ring 52 of Goldenberg is no more than the “deformable sealing material” and that there is no structure in Goldenberg that is equivalent to the “port” of claim 1. Third, even if the ring 52 is considered to be a part of the hub, it is not “in communication with a lumen of the hub” as recited in claim 1.


In Chu, the Examiner points to element 107 as being equivalent to the “port”. Element 107 is simply an aperture through which the cord passes. The aperture 107 does not contain a “deformable sealing material” as recited in claim 1.

Consequently, applicant submits that none of the cited references, either alone or in combination, teach or suggest the novel port feature as recited in claim 1.

For the similar reasons as discussed above, applicant submits that independent claims 16, 25 and 29 are also patentable. Dependent claims 2-12, 14-15, 17-22, 26-28 and 30-31 are also patentable by virtue of their dependency from their respective independent claims.

Based upon the above amendments and remarks, applicant respectfully requests reconsideration of this application and its earlier allowance. Should the Examiner feel that a telephone conference with applicant's attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,


Harry K. Ahn
Reg. No. 40,243
REED SMITH LLP
599 Lexington Avenue
29th Floor
New York, NY 10022
Telephone No.: 212-521-5433
Attorney for Applicants